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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/931,365

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Motofumi Itawaki

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EXAMINER

RYMAN, DANIEL J

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,365

Applicant(s)

ITAWAKI ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on pg. 1, line 10, "has been attracted" should be "has attracted".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozkan et al. (USPN 6,055,270) in view of Echeita et al. (USPN 6,078,958).

4. Regarding claims 1, 5, and 8, Ozkan discloses a statistical multiplex system, comprising: a plurality of image encoding means (ref. 14) for encoding a plurality of program data, each of which includes image data, and outputting the resultant (col. 5, lines 8-25); multiplex means (ref. 20) for multiplexing output data of each of the image encoding means (col. 4, lines 29-41); and statistical multiplex control means (ref. 30) for acquiring an encoding difficulty level (complexity) which indicates a level of difficulty in encoding for each program data, and assigning code rates to each of the image encoding means on the basis of the encoding difficulty level, the code rate representing an amount of codes to be outputted per unit time (col. 4, line 42- col. 5, line 7).

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Ozkan does not expressly disclose at least one information encoding means for encoding auxiliary data other than the program data, and outputting the resultant; multiplex means for multiplexing output data of each of the image encoding means and the information encoding means; and statistical multiplex control means for setting a code rate for the information encoding means, and assigning code rates to each of the image encoding means on the basis of the code rate for the information encoding means. Echeita teaches, in a video distribution system, having at least one information encoding means (ref. 26) for encoding auxiliary data ("any other digitized data") other than the program data, and outputting the resultant (col. 3, lines 50-59 and col. 4, lines 25-31); multiplex means (ref. 48) for multiplexing output data of each of the image encoding means (ref. 50, 52) and the information encoding means (ref. 26) (col. 3, line 60-col. 4, line 14); and statistical multiplex control means for setting a code rate for the information encoding means (determine used bandwidth), and assigning code rates to each of the image encoding means on the basis of the code rate for the information encoding means (distribute unused bandwidth) (col. 3, line 60-col. 4, line 14; col. 6, line 40-col. 7, line 25; and col. 8, lines 16-37) in order to ensure that the available bandwidth is fully and efficiently used (col. 4, lines 13-14). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have at least one information encoding means for encoding auxiliary data other than the program data, and outputting the resultant; to have multiplex means for multiplexing output data of each of the image encoding means and the information encoding means; and to have statistical multiplex control means for setting a code rate for the information encoding means, and assigning code rates to each of the image encoding means on the basis of the code rate for

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the information encoding means in order to ensure that the available bandwidth is fully and efficiently used.

5. Regarding claims 2, 6, and 9, Ozkan in view of Echeita discloses that the statistical multiplex control means determines an image reference value by subtracting the code rate for the information encoding means from a gross code rate permissible (Echeita: col. 4, lines 3-8; col. 6, lines 61-66; and col. 8, lines 16-37), and assigns the code rates to each of the image encoding means within a limit of the image reference value (Ozkan: col. 4, line 42-col. 5, line 7 and Echeita: col. 4, lines 3-8; col. 6, lines 61-66; and col. 8, lines 16-37).

6. Regarding claims 3, 7, and 10, Ozkan in view of Echeita discloses that the statistical multiplex control means sets temporary code rates, which are temporary target values of the code rates, for each of the image encoding means on the basis of the encoding difficulty levels (Ozkan: col. 10, line 35-col. 11, line 33), and revises the temporary code rates so that the sum of the temporary code rates comes close to the image reference value within the limit thereof, thereby assigns the code rates to each of the image encoding means (Ozkan: col. 10, line 35-col. 11, line 33 and Echeita: col. 4, lines 3-8; col. 6, lines 61-66; and col. 8, lines 16-37).

7. Regarding claim 4, Ozkan in view of Echeita discloses that the statistical multiplex control means comprises: a memory (buffer) for temporarily storing the output data from the information encoding means and thereafter outputting the data to the multiplex means and means for determining the code rate for the information encoding means on the basis of an amount of data remaining in the memory (Ozkan: col. 11, line 65-col. 12, line 15).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rao (USPN 5,506,844) see entire document which pertains to a statistical multiplexer which maximizes the quality of each channel. Wu et al. (USPN 6,594,271) see entire document which pertains to statistically multiplexing "opportunistic data" into encoded data streams. Wang et al. (USPN 6,167,084) see entire document which pertains to dynamic bit allocation for statistical multiplexing of compressed and uncompressed digital video signals.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Daniel J. Ryman
Examiner
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